

WHAT IS CLAIMED IS:

1. A heat-shrinkable polyolefin series laminated film, which is a laminated film having a surface layer (I) and at least one intermediate layer (III), each said layer having as a main component the following constituents, and with a heat shrinking ratio upon immersion in hot water at 80°C for 10 seconds of 20% or more in at least one of the directions.

Surface layer (I): mixed resin of a cyclic olefin series resin and a polyethylene series resin (A) in a mass ratio of 90/10 to 50/50.

Intermediate layer (III): a resin composition having as a main component a cyclic olefin series resin.

2. The heat-shrinkable polyolefin series laminated film as recited in Claim 1, wherein the crystal melting peak temperature (Tm) of the polyethylene series resin (A) is 80°C or higher but no greater than 125°C, as measured with a differential scanning calorimeter (DSC).

3. The heat-shrinkable polyolefin series laminated film as recited in Claim 1, wherein the crystal melting peak temperature (Tm) of the polyethylene series resin (A) is 90°C or higher but no greater than 125°C, as measured with a differential scanning calorimeter (DSC).

4. The heat-shrinkable polyolefin series laminated film as recited in any of Claims 1 to 3, wherein the polyethylene series resin (A) is a polyethylene series resin whose density is 0.890g/cm<sup>3</sup> or more but no greater than 0.940g/cm<sup>3</sup>.

5. The heat-shrinkable polyolefin series laminated film as recited in any of Claims 1 to 4, wherein the resin composition constituting the main component of the intermediate layer (III) is a mixed resin of a cyclic olefin series resin and a polyethylene series resin (C).

6. The heat-shrinkable polyolefin series laminated film as recited in any of Claims 1 to 5, wherein the resin composition constituting the main component of the intermediate layer (III) is a mixed resin of a cyclic olefin series resin and a polyethylene series resin (C) in a mass ratio of 95/5 to 50/50.

7. The heat-shrinkable polyolefin series laminated film as recited in Claim 5 or 6, wherein the polyethylene series resin (C) is a polyethylene series resin with a crystal melting peak temperature (Tm) exceeding 125°C but being no greater than 140°C, as measured with a differential scanning calorimeter (DSC).

8. The heat-shrinkable polyolefin series laminated film as recited in any of Claims 5 to 7, wherein the polyethylene series resin (C) is a polyethylene series resin whose density is 0.935g/cm<sup>3</sup> or more but no greater than 0.970g/cm<sup>3</sup>.

9. A heat-shrinkable polyolefin series laminated film, which is the laminated film as recited in Claim 1 having an intermediate layer (II) in addition to said intermediate layer (III),

the intermediate layer (II) comprising a resin composition having as a main component a polyethylene series resin (B) with a crystal melting peak temperature ( $T_m$ ) of no greater than 125°C, as measured with a differential scanning calorimeter (DSC).

10. A heat-shrinkable polyolefin series laminated film, which is the laminated film as recited in Claim 1 having an intermediate layer (II) in addition to said intermediate layer (III), each layer comprising as a main component the following resin.

Surface layer (I): a mixed resin of cyclic olefin series resin and a polyethylene series resin (A), whose crystal melting peak temperature ( $T_m$ ) is 80°C or higher but no greater than 125°C, as measured with a differential scanning calorimeter (DSC), in a mass ratio of 90/10 to 50/50.

Intermediate layer (II): a polyethylene series resin (B) whose crystal melting peak temperature ( $T_m$ ) is no greater than 125°C, as measured with a differential scanning calorimeter (DSC).

Intermediate layer (III): a mixed resin of a cyclic olefin series resin and a polyethylene series resin (C), whose crystal melting peak temperature ( $T_m$ ) exceeds 125°C but is no greater than

140°C, as measured with a differential scanning calorimeter (DSC), in a mass ratio of 95/5 to 50/50.

11. The heat-shrinkable polyolefin series laminated film as recited in Claim 10, wherein the crystal melting peak temperature (Tm) of the polyethylene series resin (A) is 90°C or higher but no greater than 125°C, as measured with a differential scanning calorimeter (DSC).

12. A heat-shrinkable polyolefin series laminated film, which is the laminated film as recited in Claim 1 having an intermediate layer (II) in addition to said intermediate layer (III), each layer comprising as a main component the following resin, with a heat shrinking ratio upon immersion in hot water at 100°C for 10 seconds of 60% or more in at least one of the directions, and a maximum shrinking stress in the main shrinking direction of the film upon immersion in silicon oil at 80°C for 10 seconds of 10 MPa or less.

Surface layer (I): a mixed resin of cyclic olefin series resin and a polyethylene series resin (A) with a crystal melting peak temperature (Tm) of 80°C or higher but no greater than 125°C, as measured with a differential scanning calorimeter (DSC), in a mass ratio of 90/10 to 50/50.

Intermediate layer (II): a polyethylene series resin (B) with a crystal melting peak temperature (Tm) of no greater than 125°C, as measured with a differential scanning calorimeter (DSC).

Intermediate layer (III): a mixed resin of a cyclic olefin series resin and a polyethylene series resin (C) with a crystal melting peak temperature ( $T_m$ ) exceeding 125°C but no greater than 140°C, as measured with a differential scanning calorimeter (DSC), in a mass ratio of 90/10 to 60/40.

13. The heat-shrinkable polyolefin series laminated film as recited in Claim 12, wherein the ratio of thickness of said intermediate layer (III) is 25% or more but no greater than 75% with respect to the thickness of the entirety of the film.

14. The heat-shrinkable polyolefin series laminated film as recited in Claim 12 or 13, wherein the modulus of elasticity in tension is 1200 MPa or more in the direction orthogonal to the main shrinking direction of the film, as measured according to JIS K7127.

15. The heat-shrinkable polyolefin series laminated film as recited in any of Claims 1 to 14, wherein any one layer, or two or more layers among said surface layer (I), intermediate layer (II) and intermediate layer (III) contain a molecular compound (D) in a proportion of one part by mass or more but no greater than 15 parts by mass with respect to 100 parts by mass of resin constituting each layer.

16. The heat-shrinkable polyolefin series laminated film as recited in Claim 15, wherein said low molecular compound (D)

is at least one species chosen from the group comprising liquid polybutene, liquid polybutadiene, liquid polyisoprene, liquid hydrogenated polybutadiene, liquid hydrogenated polyisoprene and liquid paraffin.

17. The heat-shrinkable polyolefin series laminated film as recited in any of Claims 9 to 16, having a layer constitution of (I) layer/(II) layer/(III) layer/(II) layer/(I) layer or (I) layer/(III) layer/(II) layer/(III) layer/(I) layer.

18. The heat-shrinkable polyolefin series laminated film as recited in any of Claims 1 to 17, wherein the specific gravity is less than 1.00.

19. The heat-shrinkable polyolefin series laminated film as recited in any of Claims 1 to 17, wherein the specific gravity is 0.98 or less.

20. The heat-shrinkable polyolefin series laminated film as recited in any of Claims 1 to 17, wherein the specific gravity is 0.97 or less.

21. A heat-shrinkable label comprising a print layer formed on one side or both sides of the heat-shrinkable polyolefin series laminated film as recited in any of Claims 1 to 20, the specific gravity being less than 1.00 after the print layer has been formed.

22. A container fitted with the heat-shrinkable label as recited in Claim 21.